

## MINUTES OF DOT-AGC BRIDGE DESIGN SUBCOMMITTEE MEETING

The DOT-AGC Joint Bridge Design Subcommittee met on February 9<sup>th</sup>, 2004. Those in attendance were:

Berry Jenkins	Manager of Highway Heavy Division, Carolinas Branch AGC (Co-Chairman)
Greg Perfetti	State Bridge Design Engineer (Co-Chairman)
Chris Britton	Taylor & Murphy Construction Co.
John Herrin	Taylor & Murphy Construction Co.
Richard Holshouser	Sanford Contractors, Inc.
Mark Lively	Crowder Construction
Greg Canniff	Rea Contracting
Kevin Burns	R.E. Burns & Sons
Reid Castrodale	Carolina Stalite / Georgia-Carolinas PCI
Ron Hancock	State Bridge Construction Engineer
Allen Raynor	Assistant State Bridge Design Engineer
Paul Lambert	Structure Design Project Engineer
Tom Koch	Structure Design Project Engineer
Chris Kreider	Regional Operations Engineer – Geotechnical Unit
Scott Hidden	Support Services Supervisor – Geotechnical Unit
Gichuru Muchane	Structure Design Engineer

During the review of the December 8<sup>th</sup>, 2004 meeting minutes, the following items were discussed:

### 1. *Pile Dynamic Analyzer*

Mr. Hidden stated that the last sentence of the last paragraph in Item 2. – Pile Dynamic Analyzer should be corrected to read "*Mr. Hidden will develop a Drilled Pier Specification and the Special Provisions once all of the details have been worked out.*"

Mr. Hidden also reported that the committee for developing the drilled pier specifications has been assembled. He anticipated presenting the draft specifications at the next AGC-DOT Committee meeting.

The minutes of the December 8<sup>th</sup>, 2004 meeting were approved with the above correction.

The following items of new business were discussed:

### 1. *Walls*

Mr. Hidden stated that the Geotechnical Engineering Unit is in the process of developing a standard policy for plans and specifications as it relates to permanent walls. This process will include a review of how a permanent wall type is decided and how and where it is shown in the plans. He presented an overview of the current process noting that the Roadway Design Unit identifies the need for retaining walls which are Roadway pay items, the Structure Design Unit shows the retaining wall component details on structure plans, and the Geotechnical Unit selects the wall type. Wall envelopes may be shown in Roadway plans or Structure plans and often both.

Mr. Hidden expressed the need for more consistent practice for detailing and designing walls. Since the process involves several units, Mr. Hidden stated that a multidisciplinary committee was required to review the process for preparing retaining wall plans. The committee will also develop a retaining wall design manual.

Mr. Hidden requested feedback from the contractors on how coordination and payment for retaining walls could be improved. There was some general discussion on this issue. The contractors were not in favor of eliminating the wall envelope. Mr. Britton suggested clarifying who is responsible for verifying the wall envelope. In general, the contractors did not have any major issues that need to be addressed.

## 2. *Temporary Shoring*

Mr. Hidden also advised that work is underway to provide additional standard options for temporary shoring. The new standards add temporary MSE walls, which include fabric, wire, and geogrid walls. Details for staged construction of reinforced approach fills in conjunction with shoring are also being developed.

## 3. *Special Provision for Crane Safety*

Mr. Jenkins stated that he has had several contractors express concern over the new Project Special Provision for Crane Safety. There was much discussion on this issue and the majority of Contractors represented at the meeting were concerned about the following:

- No mechanism to train new operators prior to obtaining a certification,
- Inability to get experienced employees certified if they are not good at taking written examinations,
- The certification requirement leading to less experienced crane operators and driving up the cost of performing the work,
- Having to pull operators from the field to attend several days of training,
- Only two options for certification – National AGC and CCO,
- Bonding agencies and insurers provide sufficient safety oversight, and
- The Department does not need to add another layer of oversight.

Mr. Burns also suggested the following revisions to the Special Provision:

1.) Allow for a graduated experience level requirement for different crane operations, with the most critical operations to be executed by or under the supervision of a certified employee and 2.) Allow the option to take an oral exam and site practical exam for the more experienced crane operators.

Mr. Canniff suggested including a grandfather clause in the Provision to exempt the more experienced crane operators from the written exams. Mr. Holshouser suggested revising the Provision to make it similar to the ANSI standards, which would be less expensive to implement for the contractors.

Mr. Hancock requested more specific information from the contractors and suggested that they develop proposed changes by the next meeting for discussion.

Mr. Jenkins stated that the AGC will send out a survey to all contractors to determine the magnitude of these concerns.

4. *Deck Girder Bridges*

Mr. Perfetti presented an overview of two federal Innovative Bridge Research and Construction (IBRC) project funds recently awarded to NCDOT. He added that for one of the two projects the Department will be constructing a precast decked girder bridge in Stanly County. He introduced Mr. Castrodale, who presented the concepts and benefits of decked girder bridges. Mr. Castrodale's presentation focused on field operations, in which he illustrated how the integral deck offered increased span lengths for typical AASHTO and Bulb-Tee girders, as well as the benefits of rapid construction. One drawback was that decked girders were considerably heavier, and therefore transportation and bridge site access were major considerations.

Contractors inquired when the decked girder project would be let. Mr. Hancock responded by stating that the project would be let in May 2005, and added the Department anticipated that it would be completed within one construction season.

5. *Other*

- i. Mr. Britton inquired if there are plans to change the payment for shaft inspection devices (SID) to incidental to the cost of drilled shafts. Mr. Hancock replied that it is a separate pay item and there are no plans to change the method of pay for that item of work.

6. *Next Meeting*

The next meeting is scheduled for April 13<sup>th</sup>, 2005 in the Structure Design Unit conference Room C.